

High Technology Business Scan Handout



March 19, 2010

High Technology Industry Taxonomy

LEVEL I

3254 - Pharmaceutical and Medicine Manufacturing

3341 - Computer and Peripheral Equipment Manufacturing

3342 - Communications Equipment Manufacturing

3344 - Semiconductor and Other Electronic Component Manufacturing

3345 - Navigational, Measuring, Electromedical, and Control Instruments Manufacturing

3364 - Aerospace Product and Parts Manufacturing

5112 - Software Publishers

5179 - Other Telecommunications

5182 - Data Processing, Hosting, and Related Services

5191 - Other Information Services

5413 - Architectural, Engineering, and Related Services

5415 - Computer Systems Design and Related Services

5417 - Scientific Research and Development Services

LEVEL II

1131 - Timber Tract Operations

1132 - Forest Nurseries and Gathering of Forest Products

2111 - Oil and Gas Extraction

2211 - Electric Power Generation, Transmission and Distribution

3251 - Basic Chemical Manufacturing

3252 - Resin, Synthetic Rubber, and Artificial Synthetic Fibers and Filaments
Manufacturing

3332 - Industrial Machinery Manufacturing

3333 - Commercial and Service Industry Machinery Manufacturing

3343 - Audio and Video Equipment Manufacturing

3346 - Manufacturing and Reproducing Magnetic and Optical Media

4234 - Professional and Commercial Equipment and Supplies Merchant Wholesalers

5416 - Management, Scientific, and Technical Consulting Services

High Technology Industry Taxonomy continued

LEVEL III
3241 Petroleum and Coal Products Manufacturing
3253 Pesticide, Fertilizer, and Other Agricultural Chemical Manufacturing
3255 Paint, Coating, and Adhesive Manufacturing
3259 Other Chemical Product and Preparation Manufacturing
3336 Engine, Turbine, and Power Transmission Equipment Manufacturing
3339 Other General Purpose Machinery Manufacturing
3353 Electrical Equipment Manufacturing
3369 Other Transportation Equipment Manufacturing
4861 Pipeline Transportation of Crude Oil
4862 Pipeline Transportation of Natural Gas
4869 Other Pipeline Transportation
5171 Wired Telecommunications Carriers
5172 Wireless Telecommunications Carriers (except Satellite)
5174 Satellite Telecommunications
5211 Monetary Authorities-Central Bank
5232 Securities and Commodity Exchanges
5511 Management of Companies and Enterprises
5612 Facilities Support Services
8112 Electronic and Precision Equipment Repair and Maintenance

High Technology Occupation Taxonomy

Computer and Mathematical Occupations	
11-3021 Computer and information systems managers	15-1061 Database administrators
11-9041 Engineering managers	15-1071 Network and computer systems administrators
11-9121 Natural sciences managers	15-1081 Network systems and data communications analysts
15-1011 Computer and information scientists, research	15-2011 Actuaries
15-1021 Computer programmers	15-2021 Mathematicians
15-1031 Computer software engineers, applications	15-2031 Operations research analysts
15-1032 Computer software engineers, systems software	15-2041 Statisticians
15-1041 Computer support specialists	15-2091 Mathematical technicians
15-1051 Computer systems analysts	

Architecture and Engineering Occupations	
17-2021 Agricultural engineers	17-2161 Nuclear engineers
17-2031 Biomedical engineers	17-2171 Petroleum engineers
17-2041 Chemical engineers	17-3011 Architectural and civil drafters
17-2051 Civil engineers	17-3012 Electrical and electronics drafters
17-2061 Computer hardware engineers	17-3013 Mechanical drafters
17-2071 Electrical engineers	17-3021 Aerospace engineering and operations technicians
17-2072 Electronics engineers, except computer	17-3022 Civil engineering technicians
17-2081 Environmental engineers	17-3023 Electrical and electronic engineering technicians
17-2111 Health and safety engineers, except mining safety engineers and inspectors	17-3024 Electromechanical technicians

Architecture and Engineering Occupations	
17-2112 Industrial engineers	17-3025 Environmental engineering technicians
17-2121 Marine engineers and naval architects	17-3026 Industrial engineering technicians
17-2131 Materials engineers	17-3027 Mechanical engineering technicians
17-2141 Mechanical engineers	17-3031 Surveying and mapping technicians
17-2151 Mining and geological engineers, including mining safety engineers	

Life, Physical and Social Science Occupations	
19-1011 Animal scientists	19-2031 Chemists
19-1012 Food scientists and technologists	19-2032 Materials scientists
19-1013 Soil and plant scientists	19-2041 Environmental scientists and specialists, including health
19-1021 Biochemists and biophysicists	19-2042 Geoscientists, except hydrologists and geographers
19-1022 Microbiologists	19-2043 Hydrologists
19-1023 Zoologists and wildlife biologists	19-4011 Agricultural and food science technicians
19-1031 Conservation scientists	19-4021 Biological technicians
19-1032 Foresters	19-4031 Chemical technicians
19-1041 Epidemiologists	19-4041 Geological and petroleum technicians
19-1042 Medical scientists, except epidemiologists	19-4051 Nuclear technicians
19-2011 Astronomers	19-4091 Environmental science and protection technicians, including health
19-2012 Physicists	19-4092 Forensic science technicians
19-2021 Atmospheric and space scientists	19-4093 Forest and conservation technicians

High-Tech Occupational Wage and Employment Data by Region

17-2071 Electrical engineers

Region	2008 Jobs	2016 Jobs	10% Wage	Median Wage	Employment per 100K
Statewide	1,713	1,557	\$21.51	\$35.59	112
Northern	102	111	\$20.29	\$28.20	48
North Central	24	23	\$15.13	\$24.27	24
Southwestern	1,338	1,182	\$22.53	\$36.10	198
South Central	45	48	\$23.70	\$33.42	26
Southeastern	34	36	\$14.17	\$27.53	21
East Central	171	158	\$17.28	\$40.24	87

Source: EMSI Complete Employment - 4th Quarter 2009

15-1041 Computer support specialists

Region	2008 Jobs	2016 Jobs	10% Wage	Median Wage	Employment per 100K
Statewide	3336	3787	\$12.22	\$16.29	219
Northern	650	764	\$13.22	\$17.56	307
North Central	68	76	\$8.86	\$14.40	67
Southwestern	1963	2169	\$12.29	\$16.05	291
South Central	251	296	\$12.65	\$14.74	142
Southeastern	79	96	\$9.26	\$14.49	49
East Central	325	385	\$10.93	\$17.21	165

Source: EMSI Complete Employment - 4th Quarter 2009

Hot Jobs - Definition

Idaho's hot jobs are the jobs that on average rank high in three major criteria:

- the abundance of jobs in the economy
- jobs which are growing the fastest
- jobs with the highest pay

The **hot jobs** are then disaggregated by education and training level.

High-Tech Hot Jobs

Hot Job Rank	Title	Annual Openings	Median	Education & Training
5	Computer software engineers, applications	53	\$37.59	Bachelor's degree
6	Computer software engineers, systems software	71	\$39.65	Bachelor's degree
12	Computer systems analysts	63	\$28.84	Bachelor's degree
15	Network and computer systems administrators	77	\$22.20	Bachelor's degree
20	Network systems and data communications analysts	44	\$26.31	Bachelor's degree
31	Computer support specialists	173	\$17.04	Associate degree
38	Computer and information systems managers	39	\$37.03	Bachelor's degree & work experience
53	Industrial engineers	57	\$36.25	Bachelor's degree
96	Database administrators	15	\$29.71	Bachelor's degree
97	Electronics engineers, except computer	17	\$32.23	Bachelor's degree

Source: Idaho Department of Labor 2006-2016 Statewide Long-term Projections

Projected Top 10 High-Tech Occupations in Idaho

SOC	Occupational Title	2006 Employment	2016 Employment	Percent Change
15-1081	Network Systems & Data Communications Analysts	569	884	55.4%
15-1031	Computer Software Engineers, Applications	793	1,199	51.2%
19-4092	Forensic Science Technicians	48	68	41.7%
15-1071	Network & Computer Systems Administrators	1,232	1,723	39.9%
15-1051	Computer Systems Analysts	1,038	1,385	33.4%
15-1061	Database Administrators	356	466	30.9%
17-2072	Electronics Engineers, Except Computer	314	409	30.3%
15-1032	Computer Software Engineers, Systems Software	1,635	2,109	29.0%
19-4091	Environmental Science & Protection Technicians, Including Health	247	314	27.1%
17-2081	Environmental Engineers	317	402	26.8%

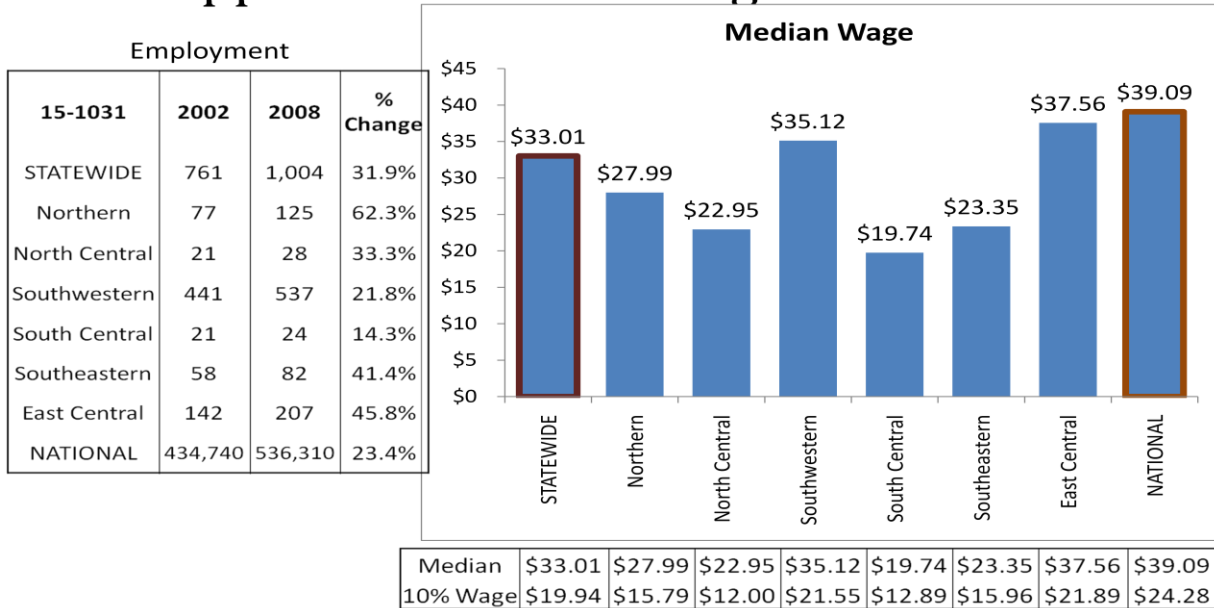
Source: Idaho Department of Labor, Idaho Long-Term Employment Projections 2006-2016

Occupation High-Tech Highlight: Wage and Employment

15-1031 Computer Software Engineers, Applications

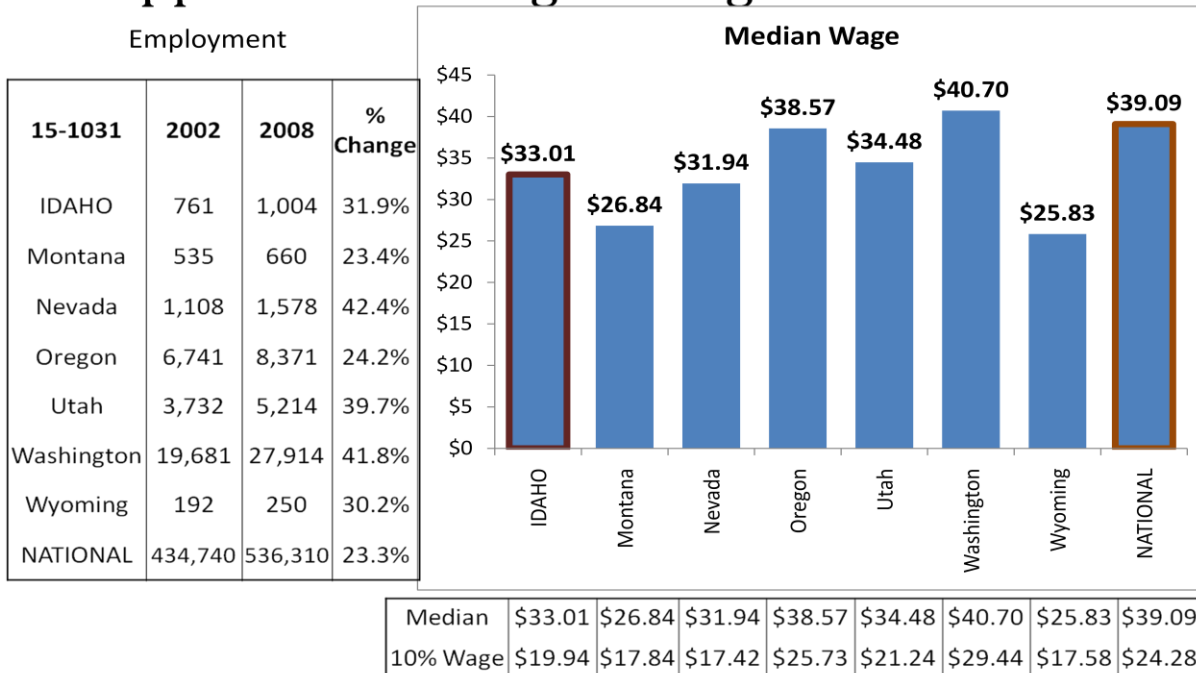
- Develop, create and modify general computer applications software or specialized utility programs. Analyze user needs and develop software solutions. Design software or customize software for client use with the aim of optimizing operational efficiency. May analyze and design databases within an application area, working individually or coordinating database development as part of a team. Exclude "Computer Hardware Engineers" (17-2061).

15-1031 Computer Software Engineers, Applications- Idaho Regions



Source: EMSI Complete Employment - 4th Quarter 2009

15-1031 Computer Software Engineers, Applications- Neighboring States



Source: EMSI Complete Employment - 4th Quarter 2009

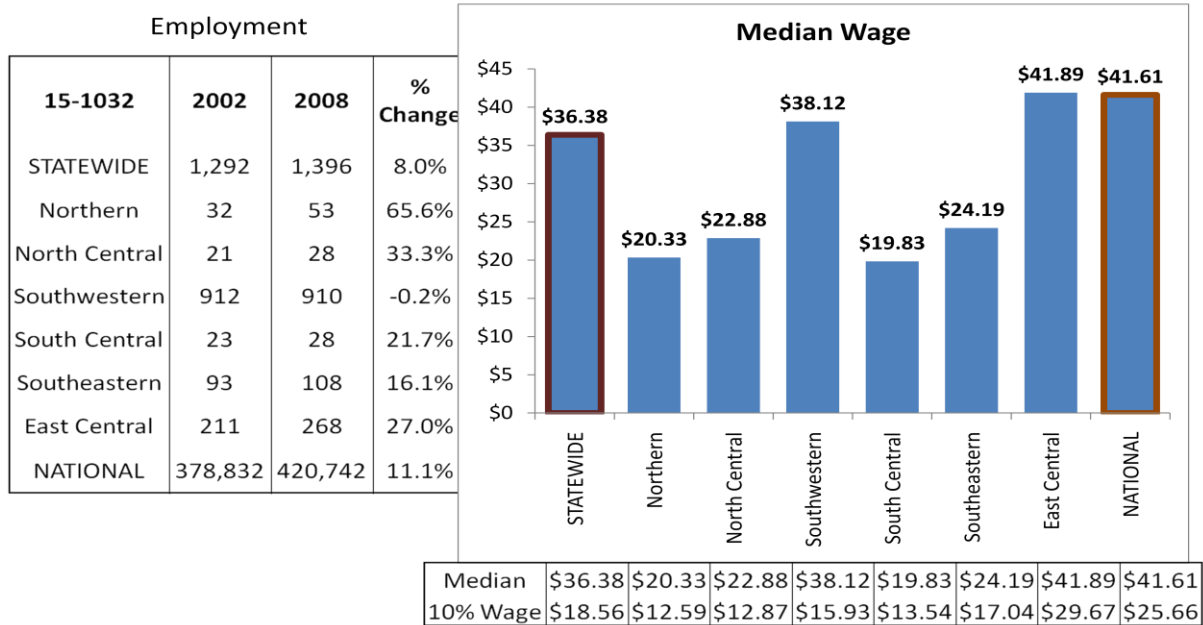
Occupation High-Tech Highlight:

Wage and Employment

15-1032 Computer Software Engineers, Systems Software

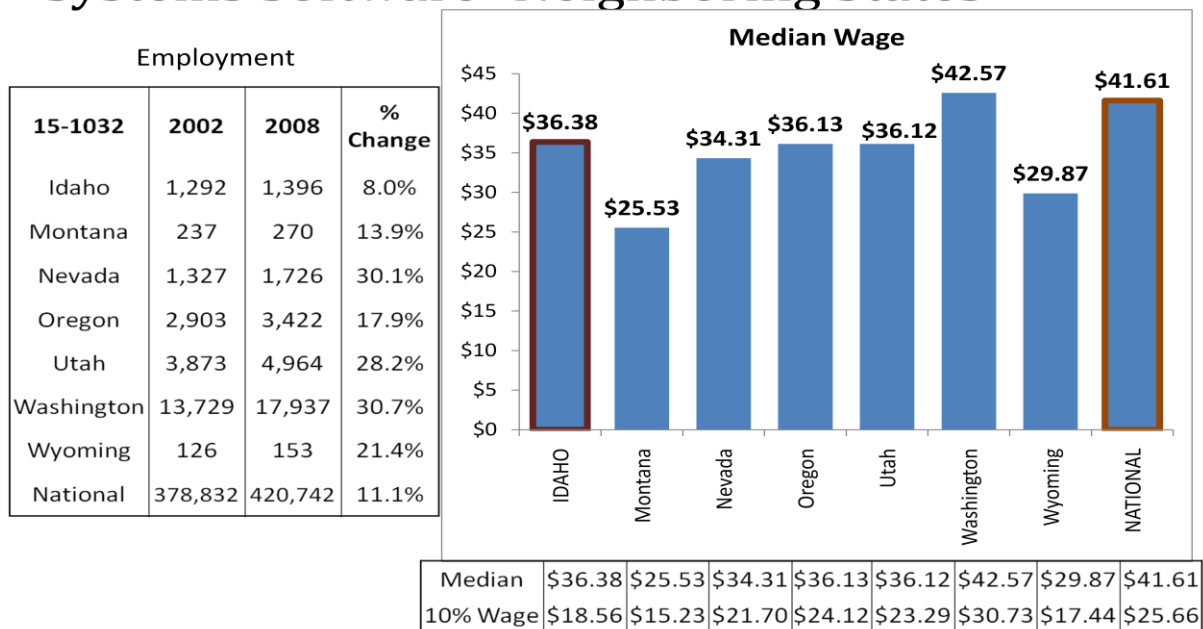
- Research, design, develop and test operating systems-level software, compilers and network distribution software for medical, industrial, military, communications, aerospace, business, scientific and general computing applications. Set operational specifications and formulate and analyze software requirements. Apply principles and techniques of computer science, engineering and mathematical analysis.

15-1032 Computer Software Engineers, Systems Software- Idaho Regions



Source: EMSI Complete Employment - 4th Quarter 2009

15-1032 Computer Software Engineers, Systems Software- Neighboring States



Source: EMSI Complete Employment - 4th Quarter 2009

